

field of tube manufacture," wherefore it would be obvious to a person of ordinary skill in the art to combine them with the primary reference. For the reasons set forth hereinbelow, applicants respectfully disagree with this holding. The secondary and tertiary references deal with funnel glass for a cathode ray tube, and the problems encountered and solved by applicants in a CRT panel glass are not encountered in funnel glass where the TiO_2 and ZrO_2 components serve to solve different problems.

In a CRT, electron beams emitted from an electron gun excite phosphors arranged on an inner surface of the CRT panel so that a video image is projected thereon. This causes a continuous radiation of X-rays to be produced inside the tube. If the X rays leaked out of the tube, it would have an adverse effect on the viewer. Therefore, it is required for the panel glass to have a high X-ray absorption. The electron beams, X-rays and ultraviolet rays produced when the video image is projected cause browning of the panel.

Applicants provide 0.1-2% TiO_2 to prevent browning by ultraviolet rays. Yanagisawa et al use TiO_2 as an essential component of the funnel glass "for adjusting the viscosity of glass" (col. 6, line 8). It is respectfully submitted that a

disclosure of TiO_2 as a viscosity-adjusting component in a funnel glass, which contains substantial amounts of PbO (5-24 wt%), does not make it obvious to a person of ordinary skill in the art to use this component to prevent browning in a panel glass which does not contain PbO .

PbO increases the X-ray absorption but causes browning of the panel by the electron beams and X-rays. In applicants' panel glass, PbO has been replaced as an X ray absorbing component by SrO , BaO and ZrO_2 . However, the addition of these components in the claimed amounts results in devitrification stones being deposited. The claimed CRT panel glass solves this problem and avoids the precipitation of devitrification stones caused by holding the X-ray absorption components in the specific ranges of 9-9.5% SrO , 8.5-9% BaO and 0.1-2.5% ZrO_2 . Furthermore, the amount of $\text{SrO}/(\text{SrO} + \text{BaO})$ is held to a range of 0.50-0.53, which has the remarkable effect of suppressing the production of devitrification stones, such as strontium silicate and barium disilicate resulting from SrO and BaO . Nothing in the prior art suggests the specifically limited ranges within the wide ranges disclosed, which include zero amounts as well as amounts greatly exceeding the claimed ranges. Specifically referring to Petersen et al, while they disclose ZrO_2 as an X-ray attenuating substance in their funnel